

## Introductions for Biological Control in Hawaii, 1974

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The Entomology Branch of the Hawaii Department of Agriculture has maintained a beneficial organism introduction program for many years. This paper includes a list of insects introduced for biological control during 1974, and gives notes on the status of some pests and their purposely introduced natural enemies.

### Weed Pest Control

***Ageratina riparia* (Regel) K. & R. (Hamakua pamakani).**

The stem galling tephritid, *Procecidochares alani* Steyskal (previously reported as *P. near pleuralis* Aldrich) was initially released on Hawaii on April 9, 1974 to aid in the control of Hamakua pamakani, a noxious range-land weed. By July, developing galls on stems were observed at various release sites on Hawaii and at Nuuanu, Oahu. The leaf defoliating pterophorid, *Oidaematophorus* sp., which was initially released in October 1973, has not been recovered to date.

***Clidemia hirta* (L.) (Koster's curse).**

Light infestations and feeding damage on *Clidemia* by the leaf rolling pyralid, *Blepharomastix ebulealis* Guenee were noted in October 1974 along a two-mile stretch on the Kawaiiki Trail, Oahu at an elevation of 1,300 to 1,400 feet. This is the first recovery of this moth since its release in 1971.

### Insect Pest Control

***Aleurocanthus spiniferus* Quaintance (orange spiny whitefly)**

Infestations of this aleyrodid were discovered for the first time in the State on foliage of roses in the Kapiolani Rose Garden, Waikiki, Oahu on July 12, 1974. Subsequent surveys revealed scattered light to heavy infestations on roses, citrus, persimmons, grapes and pears in the Waikiki, Kapahulu and Kaimuki areas. Efforts toward biological control were initiated with the introduction and release of a platygasterid, *Amitus hesperidum* Silvestri, from Mexico in August, and of an aphelinid, *Prospaltella smithi* Silvestri, from Nagasaki, Japan in September. By the end of December, *P. smithi* was recovered in light numbers in Kapahulu but no recovery of *A. hesperidum* had been made.

***Erionota thrax* L. (banana skipper).**

The heavy widespread infestations of this banana pest in the leeward areas on Oahu have subsided, and only scattered infestations were noted in this area during the year. Contributing factors in the decline of the banana skipper population were the egg parasite, *Ooencyrtus erionotae* Ferriere, introduced

TABLE 1. *Introductions for Biological Control in Hawaii, 1974*  
*(All Introductions by Entomology Branch, Hawaii Department of Agriculture)*

<i>Pest</i>	<i>Organism Introduced</i>	<i>Source</i>	<i>Sender</i>	<i>Date Rel'd 1974</i>	<i>No. Rel'd*</i>	<i>Release Point</i>
<i>WEED PEST</i>						
<i>Ageratina riparia</i> (Regel) K. & R. (Hamakua pamakani)	<i>Procecidochares alani</i> Steyskal (Diptera: Tephritidae)	La Barranca del Tigre, Vera Cruz State, Mexico	Wm. Rose	Apr. 9	100	Hualalai Ranch, Hawaii
<i>INSECT PESTS</i>						
<i>Aleurocanthus spiniferus</i> (Quaintance) (orange spiny whitefly)	<i>Amitus hesperidum</i> Silvestri (Hymenoptera: Platygasteridae)	USDA, Mexico	----	Aug. 23	100	Kapahulu, Oahu
	<i>Prospaltella smithi</i> Silvestri (Hymenoptera: Aphelinidae)	Nagasaki, Japan	N. Ohkubo	Sept. 19	20	Kapahulu, Oahu
<i>Erionota thrax</i> L. (banana skipper)	<i>Apanteles erionotae</i> Wilkinson (Hymenoptera: Braconidae)	Bangkok, Thailand	B. Napompeth	Jan. 17	75	Honouliuli, Oahu
	<i>Scenocharops</i> sp. (Hymenoptera: Ichneumonidae)	Sabah, Malaysia	R.A. Syed	Nov. 1	16	Waiahole, Oahu
<i>Haematobia irritans</i> (L.) (horn fly)	<i>Euoniticellus africanus</i> Howard (Coleoptera: Scarabaeidae)	CSIRO, Australia	D.F. Waterhouse	Apr. 5	500	Parker Ranch, Hawaii
	<i>Euoniticellus intermedius</i> Reiche (Coleoptera: Scarabaeidae)	CSIRO, Australia	D.F. Waterhouse	Apr. 5	500	Parker Ranch, Hawaii
<i>Melipotis indomita</i> (Walker) (monkeypodd-kiawe caterpillar)	<i>Eucelatoria</i> sp. (Diptera: Tachinidae)	Oaxaca, Mexico	Wm. Rose	Apr. 11	65	Hickam AFB, Honolulu, Oahu

\*Applies to initial release only.

and released in November 1973, and the larval parasite, *Apanteles erionotae* Wilkinson, introduced and released in January 1974. The skipper population in Windward Oahu is presently heavy due to its recent spread to that area. Both *O. erionotae* and *A. erionotae* are being mass reared and liberated in Windward Oahu and on Kauai. The skipper was found on Kauai for the first time in June and is causing light to moderate damage from Mana to Haena. A light infestation was reported from Maui in July. In October 1974, another larval parasite, *Scenocharops* sp. (Ichneumonidae) was introduced from Malaysia and released on Oahu to supplement the work of the two established biological control agents.

**Melipotis indomita** (Walker) (Monkey pod-kiawe caterpillar).

Foliar damage by this noctuid fluctuated from light to heavy at various times during the year on monkey pod and kiawe trees on Oahu, Kauai, Maui and Hawaii. The ichneumonid, *Chromocryptus albomarginatus* (Taschenburg), released in May and June, 1973 to aid in the control of *M. indomita*, has not been recovered to date. A tachinid, *Eucelatoria* sp., obtained from Mexico, was initially released at Hickam Air Force Base in April 1974. Up to the end of December, this species also had not been recovered.

#### Acknowledgements

Assistance by foreign and domestic collaborators, and our staff is gratefully acknowledged. Determinations by specialists of the Systematic Entomology Laboratory of the U.S. Department of Agriculture, Commonwealth Institute of Entomology and University of Hawaii were invaluable.